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EXAMINER

RAMPURIA, SATISH

ART UNIT

PAPER NUMBER

2191

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/015,899	Applicant(s) WATANABE ET AL.	
	Examiner Satish S. Rampuria	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. This action is in response to the After Final Amendment received on Jan. 6, 2006.
2. Claims cancelled by the Applicant: 1-8.
3. Claims pending in the application: 9-47.

***Response to Arguments***

4. Applicant's arguments with respect to claims have been considered but they are not persuasive.

***In the remarks, the applicant has argued that:***

- (i) It is respectfully submitted that paragraph 13 of Kenji does not describe the selection of a circuit baseboard from a list, much less "a determining device configured to determine a type of a circuit baseboard selected from the list via the displaying device." It is further respectfully submitted that neither Kunio nor Nakamura disclose this element either. As the cited references do not teach or suggest each and every element of Claim 9, Claim 9 (and dependent Claims 12-16) is patentable over the cited references.
- (ii) In contrast, Harrison describes a system for simultaneously displaying and comparing three log files. There is no teaching or suggestion in Harrison for generating a sample file having a smaller size than a size of the log file, or sampling a log file. Accordingly, it is respectfully submitted that neither Kenji nor Harrison teaches or suggests "a sample data file generation section" as recited in Claim 17.

- (iii) Claim 42 recites a general purpose inspecting system comprising, inter alia, “means for determining in advance to transmission of the prescribed command whether an execution result of command processing will be abnormal by accessing the interface section and acquiring information of status of the controlled device.”

The outstanding Office Action asserted that paragraph 12 of Kenji discloses this feature. However, the control section 3 described in paragraph 12 of Kenji describes that commands are executed to perform a function and to output the data of the activation result. There is no teaching to “determining in advance to transmission of the prescribed command whether an execution result of command processing will be abnormal.” Accordingly, it is respectfully submitted that there is no teaching in Kenji for “means for determining in advance,” as recited in Claim 42.

***Examiner's response:***

- (i) In response to the Applicants argument, Kenji discloses testing a device, which is an electronic (circuit board inherent) device. Kenji's system tests various types of electronic devices i.e., Consumer Transaction facilities, such as ATM, CD (Cash Dispenser) (see page 1, paragraph [0001]), where the list is displayed to the user based on the false mechanism equipment. It is displaying a list and the device is selected from the list to test (page 2, paragraph [0011-0017]). Therefore, the rejection is proper and maintained herein.
- (ii) In response to the Applicants argument, Harrison describes a system for simultaneously displaying and comparing three log files, as pointed out by the

Applicants. Further, Harrison generates a new log file from those three log files according to the closest time stamp on those three log files (See FIG. 3 and related discussion and col. 5-6, lines 62-67 and 1-55). Accordingly, Harrison does disclose creating a new log file from the three log files, which would be much smaller in size. Therefore, the rejection is proper and maintained herein. Therefore, the rejection is proper and maintained herein.

- (iii) In response to the Applicants argument, Kenji does disclose the testing result outputted to printer or to the screen with the test equipment (see, page 3, paragraph [0018]). It is inherent to Kenji's system to read the inspection progress (in advance) before displaying to user. Further, ID reading and ID determination (as indicated by Applicants) would be obvious in Nakamura system since perform inspections of various circuit board (see the rejection below). Therefore, the rejection is proper and maintained herein.

### *Claim Objections*

5. Claims 12-13 are objected to because of the following informalities: the word "of" is missing after the word "any one" on page 4, line 1 of claims 12 and 13.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 9, 11, 14, 16, 17, 19, 23, 32, 33, 41, 46 and 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Clarification and/or correction are required.

Regarding claims 9, 11, 14, 16, 23, 32, 33 and 41 the phrase "type" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding, claim 17, the limitation, "only necessary information" is unclear as to what necessary information are sampled from the log file.

Regarding, claim 19, the limitations, "only necessary information" and "preset information" is unclear as to what necessary information and based upon what preset information are sampled from the log file.

Regarding, claim 23, the limitation, "only necessary information" is unclear as to what necessary information are sampled from the log file.

Regarding, claim 23, the limitation, "only necessary information" is unclear as to what necessary information are sampled from the log file.

Regarding, claim 46, the limitation, "specific condition" is unclear as to what specific condition is satisfied and how it is determined.

Regarding, claim 47, the limitation, "chattering" is unclear as to what is chattering is and how it is determined.

The rejection of the base claim is necessarily incorporated into the dependent claims.

*Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 23, 33 and 41-47 are rejected under 35 U.S.C. 102(a) as being anticipated by Japanese Publication No. 09-081416 to Kenji (hereinafter called Kenji).

**Per claim 23:**

Kenji disclose:

- a software recombining section configured to recombine a software of inspection use in accordance with a type of the object (page 2, paragraph 9 “test... modifications of small scale reconstruction of software or a control unit”); and
- means for reading inspection progress information related to the object during simulation (page 1, paragraph 6 “based on the actuation information from a control unit ”), said means for reading displays a resultant on a screen of a display unit (page 2, paragraph 12 “has the function... outputs the data of an activation result to the... result file...”).

**Per claim 41:**

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Kenji disclose:

- recombining a software configured to inspect based on a type of the object (page 2, paragraph 9 “test... modifications of small scale reconstruction of software or a control unit”);
- reading inspection progress information related to the object during a simulation (page 1, paragraph 6 “based on the actuation information from a control unit ”); and
- displaying a resultant on a screen (page 2, paragraph 12 “has the function... outputs the data of an activation result to the... result file...”).

**Per claims 42-44:**

Kenji disclose:

- a controlled device configured to perform a prescribed function (page 1, paragraph 4 “control section... controls... mechanism section based on information from... control unit”);
- an interface section configured to indicate a status of the controlled device (page 2, paragraph 11 “equipment 21 connected and information transmission and reception could be performed to the control section 3 or a processor”);
- a control processor configured to inspect the controlled device by transmitting a prescribed command to the controlled device (page 1, paragraph 4 “processor... equipped with ... control section” and page 1, paragraph “control section... controls... mechanism section based on information from... control unit”); and



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- means for determining in advance to transmission of the prescribed command whether an execution result of command processing will be abnormal by accessing the interface section and acquiring information of status of the controlled device section (page 2, paragraph 12 “control unit... input function... connects with the processor equipped with the control section 3... controls the mechanism section base on the information from said control unit”).

**Per claim 45:**

Kenji disclose:

- awaiting a user input in the first thread (page 2, paragraph 15 “equipment 20 reads the input data of the input data file...);
- transmitting a command to a controlled device based upon the user input (page 2, paragraph 15 “equipment 20 reads the input data of the input data file... displayed on a screen base on input data... an operator issues direction on a screen... transmitted to control section”);
- causing the controlled device to execute processing the command (page 2, paragraph 12 “control unit... input function... connects with the processor equipped with the control section 3... controls the mechanism section base on the information from said control unit”);
- receiving a command resultant (page 2, paragraph 15 “... displayed on a screen base on input data... an operator issues direction on a screen... transmitted to control section”);

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- displaying a content of the command resultant at a control processor site (page 2, paragraph 15 "...displayed on a screen base on input data...");
- generating a second thread before entering a wait state; and specializing said second thread to indicate a status of the controlled device on a user interface (page 2, paragraph 11 "equipment 21 connected and information transmission and reception could be performed to the control section 3 or a processor").

**Per claim 46:**

Kenji disclose:

- awaiting a user input (page 2, paragraph 15 "equipment 20 reads the input data of the input data file...");
- transmitting a prescribed command to a controlled device upon the user input (page 2, paragraph 15 "equipment 20 reads the input data of the input data file... displayed on a screen base on input data... an operator issues direction on a screen... transmitted to control section");
- causing the controlled device to execute the prescribed command (page 2, paragraph 12 "control unit... input function... connects with the processor equipped with the control section 3... controls the mechanism section base on the information from said control unit");
- receiving the command resultant (page 2, paragraph 15 "... displayed on a screen base on input data... an operator issues direction on a screen... transmitted to control section");

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displaying a content of the command resultant at a control processor site (page 2, paragraph 15 "...displayed on a screen base on input data...");

- determining if a specific condition is satisfied in the controlled device; and automatically executing specific processing by said control processor when the specific condition is satisfied (page 2, paragraph 11 "equipment 21 connected and information transmission and reception could be performed to the control section 3 or a processor").

**Per claim 47:**

Kenji disclose:

- awaiting user input (page 2, paragraph 15 "equipment 20 reads the input data of the input data file...");
- transmitting a prescribed command to a controlled device (page 2, paragraph 15 "equipment 20 reads the input data of the input data file... displayed on a screen base on input data... an operator issues direction on a screen... transmitted to control section");
- causing the controlled device to execute processing the prescribed command (page 2, paragraph 12 "control unit... input function... connects with the processor equipped with the control section 3... controls the mechanism section base on the information from said control unit");
- receiving a prescribed command resultant (page 2, paragraph 15 "... displayed on a screen base on input data... an operator issues direction on a screen... transmitted to control section"); displaying a content of the command resultant at a control processor site (page 2, paragraph 15 "...displayed on a screen base on input data...");

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- displaying a content of the prescribed command resultant at a control processor site (page 2, paragraph 15 "... displayed on a screen base on input data... an operator issues direction on a screen... transmitted to control section");
- determining if chattering occurs when a controlled device transmits acknowledge; repeatedly transmitting the prescribed command until the chattering is terminated from said controlled device; and awaiting user input after termination of the chattering (page 2, paragraph 11 "equipment 21 connected and information transmission and reception could be performed to the control section 3 or a processor").

*Claim 33* is the method claim corresponding to system claim 23 and rejected under the same rational set forth in connection with the rejection of claim 23 above.

9. Claims 17-22 are rejected under 35 U.S.C. 102(e) as being as being anticipated by US Patent No. 6,421,071 to Harrison (hereinafter called Harrison).

**Per claim 17-21:**

Harrison disclose:

- A general-purpose inspecting system having a log function of filing inspection resultant as a log file to be analyzed (col. 1, lines 22-23 "analyzing data in a group of log files... display device"), said general-purpose inspecting system comprising:
- a data sampling section configured to sample only necessary information from said log file as sample data (col. 2, lines 5-12 "user selects a set of log files... displaying the top of the log files"); and

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- a sample data file generation section configured to generate a sample file having a smaller size than a size of the log file (col. 2, lines 5-12 “user selects a set of log files... displaying the top of the log files” and col. 5-6, lines 60-67 and 1-55 “...After CTS...updated... new beginning/ending line... stored in CTS... updates display... new portion of the log file... ”), said sample data file storing the sampled data (col. 2, lines 47-49 “Memory... database of log files...regular basis”).

**Per claim 22:**

The rejection of claims 20 or 21 is incorporated, and further, Harrison disclose:

- wherein said display section generates prescribed statistical data from a plurality of sample data files (col. 2, lines 18-21 “lines of the log file being displayed... same time stamp”).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 9-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji in view of Kunio and further in view of US Patent No. 6,381,565 to Nakamura (hereinafter called Nakamura).

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**Per claims 9-14 and 16:**

Kenji disclose:

- a displaying device configured to display a list of the circuit baseboards (page 2, paragraph 13 “display it on the screen... equipped with function transmit”);
- a determining device configured to determine a type of a circuit baseboard selected from the list via the displaying device (page 2, paragraph 13 “display it on the screen... equipped with function transmit”);

Kenji does not explicitly disclose a correspondence assigning device configured to assign correspondence of a PLD file to a type of a circuit baseboard to be loaded with the PLD file, a PLD file specifying device configured to refer to the correspondence information of the registering memory and specify an applicable PLD file based upon the circuit baseboard type file; and a loading device configured to load the PLD with the applicable PLD file.

However, Kunio discloses in an analogous computer a correspondence assigning device configured to assign correspondence of a PLD file to a type of a circuit baseboard to be loaded with the PLD file (page 2, paragraph 7 “peripheral device which has the response program which transmits the control command... and the parameter of a proper...”); a PLD file specifying device configured to refer to the correspondence information of the registering memory and specify an applicable PLD file based upon the circuit baseboard type file ( page 2, paragraph 7 “peripheral device which has the response program which transmits the control command... and the parameter of a proper...”); and a loading device configured to load the PLD with the

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applicable PLD file ( page 4, paragraph 26 “the class of device driver software... printer driver software... loads a program”). Further ID reading and determination would be obvious.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of loading a file corresponding to the circuit board in response to the command as taught by Kunio into the method of testing a peripheral device as taught by Kenji. The modification would be obvious because of one of ordinary skill in the art would be motivated to load the corresponding circuit board in response to the command to provide an automatic testing of a device as suggested by Kunio (page 1, paragraph 1).

Neither Kenji nor Kunio disclose An inspecting apparatus for inspecting a performance of a variety of circuit baseboards a programmable logic device (PLD) configured to inspect a circuit baseboard based upon a signal transmitted from the circuit baseboard a file storing device configured to store a plurality of PLD files a registering memory configured to store information of the correspondence.

However, Nakamura discloses in an analogous computer system an inspecting apparatus for inspecting a performance of a variety of circuit baseboards (col. 1, lines 56-58 “a functional logic verification device”), comprising: a programmable logic device (PLD) configured to inspect a circuit baseboard based upon a signal transmitted from the circuit baseboard (col. 2, lines 13-16 “verified fictional logic circuit... verification of the functional logic circuit is executed by actually supplying electric signals”); a file storing device configured to store a plurality of PLD files (col. 1, lines 56-58 “a functional logic circuit verification device, by which high-capacity memory”); a registering memory configured to store information of the

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correspondence (col. 1, lines 56-58 “a functional logic circuit verification device, by which high-capacity memory”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of inspecting the circuit board based up on signal and storing registering information as taught by Nakamura into the method of testing a peripheral device as taught by Kenji. The modification would be obvious because of one of ordinary skill in the art would be motivated to test circuit board base upon a signal and storing the registration information to provide the improved efficiency of verification as suggested by Nakamura (col. 1, lines 55-64).

12. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji in view of Kunio and further in view of US Patent No. 6,401,220 to Grey et al. (hereinafter called Grey).

**Per claim 15:**

The rejection of claim 14 is incorporated, and further, Neither Kenji nor Kunio explicitly disclose a log obtaining device configured to obtain log information when said PLD is loaded with the PLD file, wherein said load completed PLD file determining device determines if the PLD file has been loaded to the PLD of the inspection circuit based upon the log information.

However, Grey discloses in an analogous computer system a log obtaining device configured to obtain log information when said PLD is loaded with the PLD file, wherein said load completed PLD file determining device determines if the PLD file has been loaded to the PLD of the inspection circuit based upon the log information (col. 1, lines 45-48 “The executive code typically includes functionality such as UUT identification, operator notification, test report



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generation, and logging results” and (col. 6, lines 14-16 “Common operations include identifying the UUT, notifying the operator of pass/fail status, generating a test report, and logging results”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of logging results for the unit under test as taught by Grey into method of testing peripheral device as taught by the combination system of Kenji and Kunio. The modification would be obvious because of one of ordinary skill in the art would be motivated to log the test results to improve the test executive program to provide flexibility, modularity and configurability as suggested by Grey (col. 2, lines 22-45).

13. Claims 24-31, 32, and 34-40 rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji in view of in view of US Patent No. 6,453,435 to Limon, Jr. et al. (hereinafter called Limon).

**Per claim 24-31, 34-40:**

The rejection of claim 23 and 33 is incorporated, and further, Kenji disclose:

- means for displaying respective inspection items to be inspected on the screen in an order of the execution (page 1, paragraph 6 “based on the actuation information from a control unit ” and page 2, paragraph 12 “has the function... outputs the data of an activation result to the... result file...”);

Kenji does not explicitly disclose means for selectively setting and resetting a breakpoint, said breakpoint halting inspection of a corresponding item, wherein the inspection operation

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configured to continuously inspect items one after another is halted where the breakpoint is set by the means for selectively setting and resetting.

However, Limon discloses in an analogous computer system means for selectively setting and resetting a breakpoint, said breakpoint halting inspection of a corresponding item (col. 18, lines 27-30 “When the debug mode... set one or more breakpoints... as a breakpoint”), wherein the inspection operation configured to continuously inspect items one after another is halted where the breakpoint is set by the means for selectively setting and resetting (col. 19, lines 3-10 “While the... halt the interpretation... STOP button... as a breakpoint... Go button”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of using breakpoints in testing circuit boards as taught by Limon into the method of testing the device as taught by Kenji. The modification would be obvious because of one of ordinary skill in the art would be motivated to use breakpoints in testing circuit boards to provide an improved technique for testing circuit board as suggested by Limon (col. 2, lines 5-25).

*Claim 32* is the computer program product claim corresponding to method claim 24 and rejected under the same rationale set forth in connection with the rejection of claim 24 above.

### *Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

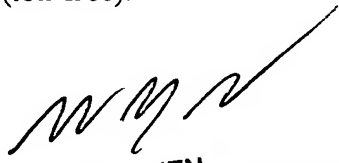
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 5:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wei Y. Zhen** can be reached on **(571) 272-3708**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Satish S. Rampuria  
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Art Unit 2191  
01/24/2006



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**SUPERVISORY PATENT EXAMINER**